Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1-15. (canceled)

16. (currently amended): A transceiver system for sending and receiving infrared signals, comprising:

a circuit structure defined by a front side and a back side;

at least one infrared emitting device located on said front side;

at least one infrared detecting device also located on said front side;

a transceiver circuit device located on said front side, said infrared detecting device further comprising a front side and a back side, said infrared detecting device back side aligned to face said front side of said circuit structure, said infrared emitting device further comprising a back side, said infrared emitting device back side aligned to face said infrared detecting device front side, whereby said infrared emitting device and said infrared detection device form an integrated infrared emitting and infrared detection device, said integrated infrared emitting/infrared detection device is located on said front side of said transceiver circuit device to form a transceiver/infrared emitting/infrared detection device stack;

a primary lens element providing an optical path, said primary lens element and said transceiver/infrared emitting/infrared detection device stack cooperatively located such that said transceiver/infrared emitting/infrared detection device stack is aligned with said optical path; and

a secondary lens unit separated by a distance from said primary lens element and aligned along said optical path, the primary lens element located

between the secondary lens unit and the at least one infrared emitting device, the secondary lens unit causing a ray to be refracted such that the angle of the ray with respect to the secondary lens unit is modified by passing through the secondary lens unit.

17. (original) The system of Claim 16, further comprising:

a housing encapsulating said transceiver/infrared emitting/infrared detection device stack.

18. (canceled)

19. (previously presented) An improved process for transmitting and receiving infrared signals from an infrared transceiver assembly comprising a circuit structure defining a first side and a second side, a transceiver circuit device, at least one infrared emitting device and at least one infrared detection device, the steps comprising:

transmitting infrared signals by transmitting signals to said transceiver circuit device, said transceiver circuit device being located on said first side;

passing said signals through said transceiver circuit device and to said infrared emitting device, said infrared emitting device located on said second side;

emitting infrared signals from said infrared emitting device;

receiving infrared signals by receiving infrared signals with said infrared detection device, said infrared emitting device being stacked upon said infrared detection device to form an integrated infrared emitting/detection device stack;

passing said received signals to said transceiver circuit device; and

passing said received signals away from said transceiver circuit device.

20. (previously presented) The process of Claim 19, wherein said first passing comprises passing said signals to said infrared emitting device via said circuit

structure, said circuit structure comprising a printed circuit board, and wherein said second passing comprises passing said received signals to said transceiver circuit device via said circuit structure.

21. (previously presented) An optical communication device for transmitting and receiving optical communication signals, comprising:

an optical receiving device that receives a first optical signal at a first surface;

an optical transmission device that emits a second optical signal from a second surface, the first and second surfaces facing in a common direction;

a support element, the optical receiving device and the optical transmission device mounted to a first side of the support element; and

a transceiver device in communication with both the optical transmission device and the optical receiving device, the transceiver device mounted on a second side of the support element, the second side in opposition to the first side.

22. (previously presented) The optical communication device of claim 21, wherein the support element is a printed circuit board.

23. (previously presented) The optical communication device of claim 21, wherein the optical receiving device and the optical transmission device are both directly mounted to the first side of the support element and are spaced apart along the first side of the support element.

24. (previously presented) The optical communication device of claim 21, wherein the optical transmission device is mounted on the optical receiving device, and the optical receiving device is mounted on the first side of the support element.

25. (previously presented) The optical communication device of claim 21, wherein the transceiver device has a circuit on a third surface, the third surface facing the second side of the support element.

26. (previously presented) The optical communication device of claim 21, wherein the transceiver device has a circuit on a third surface, the third surface facing away from the second side of the support element.

27. (previously presented) The optical communication device of claim 21, further comprising:

a transmission lens that passes a ray from the optical transmission device.

28. (previously presented) The optical communication device of claim 21, further comprising:

a receiving lens that passes a ray to the optical receiving device.

29. (previously presented) The optical communication device of claim 21, further comprising:

a single lens that passes a first ray from the optical transmission device and passes a second ray to the optical receiving device.

30. (previously presented) A transceiver system for sending and receiving infrared signals, comprising:

a circuit structure having a front side;

an infrared emitting device having a back side;

an infrared detection device having a front side and a back side;

a transceiver circuit device having a front side and a back side, said infrared detecting device back side aligned to face said front side of said transceiver circuit device, said infrared emitting device back side aligned to face said infrared detection device front side, wherein said infrared emitting device

and said infrared detection device form an integrated infrared emitting/infrared detection device, said integrated infrared emitting/infrared detection device located on said front side of said transceiver circuit device to form a transceiver/infrared emitting/infrared detection device stack located on said front side of said circuit structure;

a primary lens element, said primary lens element and said transceiver/infrared emitting/infrared detection device stack being oriented such that an optical path originating from said infrared emitting device passes through said primary lens element, wherein a ray travels from said infrared emitting device along said optical path; and

a secondary lens element separated by a distance from said primary lens element and aligned along said optical path, said primary lens element located between said secondary lens element and said infrared emitting device, said secondary lens element causing said ray to be refracted such that an angle of said ray with respect to said secondary lens element is modified by passing through said secondary lens element.

31. (previously presented) The transceiver system of claim 30, wherein said primary lens element and said transceiver/infrared emitting/infrared detection device stack are oriented such that said optical path from said infrared emitting device is reflected by a mirror and then passes through said primary lens element.

32. (previously presented) The transceiver system of claim 30, wherein said primary lens element comprises a different refractive power than that of said secondary lens element.

33. (previously presented) The transceiver system of claim 30, wherein said primary lens element has no refractive power.

34. (previously presented) The transceiver system of claim 30, wherein said secondary lens element exhibits a plurality of different refractive powers.

35. (previously presented) The transceiver system of claim 34, wherein said secondary lens element comprises a separate region for each of said plurality of different refractive powers.

36. (previously presented) The transceiver system of claim 35, wherein each of said separate regions comprises a single refractive power.

37. (previously presented) The transceiver system of claim 30, further comprising:

a housing encapsulating said transceiver/infrared emitting/infrared detection device stack, said housing comprising a wall at least partially defined by said primary lens element.

38. (previously presented) The transceiver system of claim 37, wherein said wall has an outer surface that is substantially flat.